

Fact Sheet

LA0064335; A14803; PER20060004

Page 2

Outfall 004

Discharge Location: Latitude 30°8'49" North

Longitude 90°51'52" West

Description: non-contact stormwater, dust control water, miscellaneous wastewater from fire fighting activities, building washdown (no detergents), and uncontaminated groundwater

Expected flow: 0.0732 MGD

Type of Flow Measurement which the facility is currently using: calculation based on drainage area

Outfall 005

Discharge Location: Latitude 30°8'46" North

Longitude 90°51'23" West

Description: treated landfill wastewater including leachate, contact stormwater, condensate from enclosed flare, sanitary wastewater, truck washwater, washdown water from the covered mixing basin area, maintenance, refueling, and washing facility, discharges from fire fighting, and dust control waters

Expected flow: 1.728 MGD

Type of Flow Measurement which the facility is currently using: calculation based on pump capacity

Outfall 006

Discharge Location: Latitude 30°8'46" North

Longitude 90°51'52" West

Description: non-contact stormwater, dust control water, miscellaneous wastewater from fire fighting activities, building washdown (no detergents), and uncontaminated groundwater

Expected flow: 0.0082 MGD

Type of Flow Measurement which the facility is currently using: calculation based on drainage area

V.

RECEIVING WATERS:

The discharge is into the Panama Canal in segment 040403 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Panama Canal is 2.15 cfs. The **hardness value** is 248.4 mg/l and the **fifteenth percentile value for TSS** is 21 mg/l. (See memo from Franklin to Marse dated August 20, 2008.)

Fact Sheet

LA0064335; AI4803; PER20060004

Page 3

The designated uses and degree of support for Segment 040403 of the Lake Ponchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not supported	Not supported	N/A	N/A	N/A

^{1/} The designated uses and degree of support for Segment 040403 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040403 of the Lake Pontchartrain Basin is on the 2006 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury, nitrate/nitrite, dissolved oxygen, phosphorus, sedimentation, turbidity, and non-native aquatic plants. To date no TMDLs have been completed for this waterbody.

Until completion of the TMDLs for the Lake Pontchartrain Basin, suspected causes of impairment which are not directly attributed to landfill point sources have been eliminated in the formulation of effluent limitations and other requirements of this permit. This includes phosphorus and non-native aquatic plants. This determination is made through best professional judgement.

Suspected causes of concern remaining after the elimination process are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Dissolved oxygen

Biochemical oxygen demand (or BOD) is the amount of oxygen required by bacteria to oxidize biological degradable material (normally organic matter) found in wastewater, effluents, and polluted waters. The test measures the amount of oxygen consumed in a sample by naturally occurring bacteria over a five-day period. Therefore, to protect against potential discharges resulting in DO levels below that of state water quality standards for the receiving waterbody, BOD₅ limits have been placed in the permit at outfall 005. Monitoring for biological oxygen demand is required by EPA's Effluent Guidelines for Landfills Point Source Category at 40 CFR Part 427 and the best indicator by which to measure the potential discharge of oxygen consuming pollutants at levels that will result in dissolved oxygen below that of state water quality standards.

Fact Sheet

LA0064335; A14803; PER20060004

Page 4

Ammonia and nutrients

Nitrate and nitrite are considered nutrients. Nutrients can result in the consumption of dissolved oxygen in the receiving stream making it less available for aquatic life. This Office utilizes ammonia nitrogen as an indicator by which to monitor for the potential presence of nutrients remaining in a waste stream after the treatment process. EPA Guidelines for Landfills Point Source Category at 40 CFR Part 427 contains effluent limitations for ammonia. These limits have been included in the permit.

Mercury

The source of the mercury impairment has been identified as atmospheric deposition. The mercury impairment applies to the named waterbody. The discharge being permitted is not directly into the mercury impaired waterbody. In addition, sample analysis from outfalls 003, 004, and 005 did not indicate mercury above the EPA MQL. Therefore, no limit or mercury prevention program plan has been included in the draft permit. Should the TMDL for mercury determine a mercury effluent limitation is necessary; a reopener clause has been included in the draft permit.

VI.

ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040403 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the *West Indian Manatee*, which is listed as a threatened/endangered species. This draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the *West Indian Manatee* since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII.

HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII.

PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Fact Sheet

LA0064335; A14803; PER20060004

Page 5

For additional information, contact:

Mrs. Angela Marse
 Water Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX.

PROPOSED PERMIT LIMITS:**Final Effluent Limits:****OUTFALL 003, 004, and 006**

The previous permit contained outfalls 003 and 004 for the discharge of non-contact stormwater. Under the new permit, a new outfall, 006, will also discharge non-contact stormwater. Outfall 006 is for the intermittent discharge of noncontact stormwater (from closed areas of the landfill and active areas having at least 24 inches of interim compacted cover), and dust control water. The outfall is currently permitted under Multi-Sector General Permit (MSGP) LAR05N965. Upon the effective date of this permit, coverage under the MSGP permit will be terminated.

The previous permit required monitoring and reporting of several metals at non-contact stormwater outfalls. From June, 2006 through June, 2008 concentrations above the minimum detection levels for chromium, lead, arsenic, and mercury were reported on some DMRs at outfalls 003 and 004. For this reason, a geometric mean was found for these pollutants. The geometric mean was evaluated to determine if a water quality based limit was needed for any of these metals. No water quality based limits were needed. Effluent limits will be the same as the previous permit for outfalls 003 and 004. These limits will also apply to outfall 006. Because no water quality based limits were required in the previous permit and dmr data did not indicate the need for any water quality based limits in the draft permit, the monitoring frequency for metals at these outfalls has been reduced from 1/month to 1/quarter.

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
TOC	---	50 mg/l	MSGP, Sector L issued April 28, 2006 and the previous permit issued September 25, 2003.
Oil & grease	---	15 mg/l	MSGP, Sector L issued April 28, 2006 and the previous permit issued September 25, 2003.
Ammonia	Report mg/l	Report mg/l	Best professional judgment based on the previous permit.
Arsenic	---	Report mg/l	Best professional judgment based on the previous permit.
Barium	---	Report	Best professional judgment based

Fact Sheet

LA0064335; A14803; PER20060004

Page 6

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
		mg/l	on the previous permit.
Cadmium	---	Report mg/l	Best professional judgment based on the previous permit.
Chromium	---	Report mg/l	Best professional judgment based on the previous permit.
Cyanide	---	Report mg/l	Best professional judgment based on the previous permit.
Lead	---	Report mg/l	Best professional judgment based on the previous permit.
Mercury	---	Report mg/l	Best professional judgment based on the previous permit.
Selenium	---	Report mg/l	Best professional judgment based on the previous permit.
Silver	---	Report mg/l	Best professional judgment based on the previous permit.
TSS	---	135 mg/l	MSGP, Sector L issued April 28, 2006 and the previous permit issued September 25, 2003.

Other Effluent Limitations:**1) pH**

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Fact Sheet

LA0064335; A14803; PER20060004

Page 7

Final Effluent Limits:**OUTFALL 005**

Currently, maintenance shop floor washdown water, vehicle/equipment washwater, washdown water from the covered mixing basin area, maintenance area, and truck wash center as well as some contact stormwater are sent to the oxidation pond before being discharged via outfall 005. Around the year 2000, certain solid waste that the facility had been disposing of was designated as a hazardous waste (K169-K172) under the Resource Conservation and Recovery Act. Since that time, leachate, condensate, and some contact stormwater have been collected in tanks and sent off-site for disposal. BFI is currently undergoing the delisting process for the K-listed waste. Once the K-listed waste meets delisting criteria, outfall 005 will be permitted to accept these wastestreams. Because these wastestreams are all considered landfill wastewater and were all included in the previously issued permit, effluent limitations and parameters will remain the same in the renewal permit with the exception of chlorides and total phenols.

Water quality based effluent limits were included in the previous permit for total phenol and total cyanide. The DMR review discussed in Section XI of this fact sheet revealed a few excursions of the cyanide limit. No excursions of the total phenol limit were reported on DMRs. The phenol limit from the Effluent Guidelines for the Landfills Point Source Category was also included in the previous permit. Since the facility did not exceed the total phenol limit and a phenol limit is required by the Effluent Guidelines, the total phenol limit has been removed from the permit. The cyanide limit will remain in the permit.

The previous permit contained a monthly average effluent limitation for chloride of 415mg/l and a daily maximum of 985 mg/l. The geometric mean of chloride data reported on DMRs was 630 mg/l. The facility has not been able to meet the chloride limit contained in the previous permit. The previous permit was based on a critical flow of 2.14 cfs, water quality criteria for chlorides for subsegment 040403, and an assumed background level of 50 mg/l in the Panama Canal. LAC 33:IX.1115.C.8 allows for the harmonic mean to be used to calculate chloride criteria below the point of discharge (Chloride criteria are calculated for long term effects.) The harmonic mean of the Panama Canal is 6.45cfs. (See memo from Franklin to Marse dated August 20, 2008.)

The new water quality based limit is 853 mg/l (monthly average). Because the effluent travels over 20 miles before entering the Blind River and the discharge is intermittent, numerical criteria for the subsegment (250mg/l) should not be exceeded.

BFI Colonial Landfill is also planning an expansion within the life of the permit. The expansion includes converting the current oxidation pond to a waste cell and constructing a new pond south of the current active phase. A new outfall 005 will be constructed from the new oxidation pond in Area III of the landfill. BFI shall notify LDEQ in writing within 30 days of relocating outfall 005. The notification shall include the new latitude and longitude of outfall 005. The notification shall be made to the Office of Environmental Services, Water Permits Division and the Office of Environmental Compliance, Enforcement Division.

Final effluent limitations shall become effective the effective date of the permit and expire the expiration date of the permit.

Fact Sheet

LA0064335; A14803; PER20060004

Page 8

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
BOD ₅	20 mg/l	30 mg/l	BPJ from previously issued water discharge permits for similar facilities/effluents.
TSS	35 mg/l	50 mg/l	BPJ from previously issued water discharge permits for similar facilities/effluents.
Chlorides	853 mg/l	2030 mg/l	Water Quality Based Limit.
Sulfates	---	250 mg/l	Previous effluent limit.
Ammonia-nitrogen	4.9 mg/l	10 mg/l	Effluent Limitation Guidelines, Pretreatment Standards, and New Source Performance Standards for Landfills Point Source Category.

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
Alpha Terpineol	0.016 mg/l	0.033 mg/l	Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category.
Benzoic Acid	0.071 mg/l	0.12 mg/l	Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category.
p-Cresol	0.014 mg/l	0.025 mg/l	Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category.
Zinc	0.11 mg/l	0.2 mg/l	Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category.
Phenol	0.015 mg/l	0.026 mg/l	Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Landfills Point Source Category.
Cyanides	0.007 mg/l	0.016 mg/l	Water Quality Based Limit.

Fact Sheet

LA0064335; AI4803; PER20060004

Page 9

Other Effluent Limitations for Outfall 005:**1) pH**

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

3) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

4) Priority Pollutant Scan

The treatment facility will be treating leachate and contaminated stormwater. Studies have shown the leachate generated at municipal solid waste landfills can be highly concentrated and variable, and may include the presence of priority pollutants. Contributing to this variability may be the presence of household hazardous waste in the municipal solid waste stream (EPA, 1987). Pollutants which may be found in leachate include volatile organic compounds, metals, and pesticides.

This Office has established a list of priority pollutants with threshold limits intended as action levels. Should a substance exceed the level of the established concentration, the Department is to be notified, in writing, within five (5) days of exceedance and Colonial Landfill shall institute a study to determine the source of the substance. Within sixty (60) days of the written notification the permittee shall submit a written account of the nature of the study, the study results, and measures being taken to secure abatement.

1. **Draft Threshold Limits** – The draft threshold limits are derived from either technology-based effluent limits or State Water Quality Standards and requirements. The most stringent of these limits is contained in the permit. Technology-based effluent limitations are based on the applicable effluent limitations guidelines, on Best Professional Judgment (BPJ) in the absence of applicable guidelines, or on a combination of these two methods. Currently, there are guidelines for the treatment of leachate from a municipal solid waste landfill and they have been included in the permit in addition to these threshold values. This office intends to employ technology-based effluent limitations taken from previously issued BPJ based water discharge permits for municipal solid waste landfills and other land disposal facilities. Each of the guideline regulations

Fact Sheet

LA0064335; AI4803; PER20060004

Page 10

were accompanied by a development document, which provided the support for the final guideline. A water quality screen was performed using stream characteristics for the Panama Canal. This screen was used to establish water quality based limits. (See Appendix B-2.)

2. Derivation of Threshold Limits

LDEQ/EPA Technology-Based Limits – In the early 1980's the LDEQ and EPA developed effluent limitations for all of the priority pollutants contained in the EPA 2C application for land disposal facilities. Although the limitations were technology-based and derived prior to formal State water quality criteria, water quality considerations played a significant role in the development of the limits.

The threshold limits established for metals and pesticides are water quality based in accordance with the state water quality criteria (Appendix B-1). Metals for which state criteria have not been promulgated; threshold limits have been established using technology-based effluent limits taken from water discharge permits previously issued to municipal solid waste landfills and other land disposal facilities. In accordance with the water quality standards, there may be no discharge of PCBs.

Chemical	DEQ/EPA Daily Max. ug/l	WQBL Daily Max. ug/l	Threshold Value ug/l	ML Required ug/l
METALS, CYANIDE, AND TOTAL PHENOLS				
Total Antimony	600		600	60
Total Arsenic	100	764	100	10
Total Beryllium	100		100	5
Total Cadmium	100	22	22	1
Chromium III	100	5752	100	10
Chromium VI	100	17	17	10
Total Copper	500	153	153	10
Total Cyanide	100	16	16	20
Total Lead	150	121	121	5
Total Mercury	10	0.1	0.1	0.2
Total Nickel (freshwater)	500	2840	500	40
Total Selenium	100		100	5
Total Silver	100		100	2
Total Thallium	100		100	10
Total Phenols	50	214	50	5
VOLATILE COMPOUNDS				
Acrolein	100		100	50
Acrylonitrile	100		100	50
Benzene	100	101	100	10
Bromodichloromethane	100	601	100	10
Bromoform	100	281	100	10
Carbon Tetrachloride	100	10	10	10
Chlorobenzene	100		100	50
Chloroethane	100		100	10

Fact Sheet

LA0064335; AI4803; PER20060004

Page 11

2-Chloroethyl vinyl ether	100		100	50
Chloroform	100	569	100	10
Dibromochloromethane	100	41	41	10
1,1-Dichloroethane	100		100	10
1,2-Dichloroethane	100	55	55	10
1,1-Dichloroethylene (1,1-Dichloroethene)	100	5	5	10
1,2-Dichloropropane	100		100	10
1,3-Dichloropropene (1,3-Dichloropropylene)	100	652	100	10
Ethylbenzene	100	3440	100	10
Methyl Bromide (Bromomethane)	100		100	50
Methyl Chloride (Chloromethane)	100	59138	100	50
Methylene Chloride	100	707	100	20
1,1,2,2-Tetra-chloroethane	100	15	15	10
Tetrachloroethylene	100	20	20	10
1,2-trans-Dichloroethylene	100		100	10
Toluene	100	1366	100	
1,2-trans-Dichloroethylene (1,2-dichloroethene)	100		100	10
1,1,1-Trichloroethane	100	5677	100	10
1,1,2-Trichloroethane	100	56	56	10
Trichloroethylene (Trichloroethene)	100	171	100	10
Vinyl Chloride	100	291	100	10
ACID COMPOUNDS				
2-Chlorophenol (o-Chlorophenol)	100	277	100	10
2,4-Dichlorophenol	100	217	100	10
2,4-Dimethylphenol	100		100	10
2,4-Dinitrophenol	100		100	50
4,6-Dinitro-o-Cresol {4,6-Dinitro-o-phenol} {4,6-Dinitro-2-mehtyl phenol}	100		100	50
2-Nitrophenol	100		100	20
4-Nitrophenol	100		100	50
P-Chloro-M-Cresol	100		100	
Pentachlorophenol	100		100	50
Phenol	100		100	10
2,4,6-Trichlorophenol	100		100	10
PESTICIDES				
Aldrin	10	0.003	0.003	0.05
Chlordane	10	0.0015	0.0015	0.2
DDD	10	0.002	0.002	0.1
DDE	10	0.0015	0.0015	0.1

Fact Sheet

LA0064335; A14803; PER20060004

Page 12

DDT	10	0.0015	0.0015	0.1
Dieldrin	10	0.0004	0.0004	0.1
Endosulfan	10	0.166	0.166	0.1
Endosulfan	10	0.166	0.166	
Total Endosulfan		0.332	0.332	0.1
Endosulfan sulfate	10		10	0.1
Endrin	5	0.093	0.093	0.1
Endrin aldehyde	10		10	0.1
Heptachlor	10	0.0006	0.0006	0.05
Heptachlor Epoxide	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (BHC-)	10		10	0.05
Hexachlorocyclohexane – (Lindane)	10	0.624	0.624	0.05
Total PCB's	No discharge			1.0
Toxaphene	10	0.0006	0.006	5.0
BASE/NEUTRAL COMPOUNDS				
Acenaphthene	100		100	10
Acenaphthylene	100		100	10
Anthracene	100		100	10
Benzidene	100	0.0014	0.0014	50
Benzo(a)anthracene	100		100	10
3,4-Benzofluoranthene {Benzo(b)fluoranthene}	100		100	10
Benzo(k)fluoranthene	100		100	10
Benzo(a)pyrene	100		100	10
Benzo(ghi)perylene	100		100	10
Benzyl butyl Phthalate {Butyl benzyl Phthalate}	100		100	10
Bis(2-chloroethyl)ether	100		100	10
Bis(2-chloroethoxy) methane	100		100	10
Bis(2-ethylhexyl) Phthalate	100		100	10
Bis(2-chloroisopropyl) ether	100		100	10
4-Bromophenyl phenyl ether	100		100	10
2-Chloronaphthalene	100		100	10
4-Chlorophenyl phenyl ether	100		100	10
Chrysene	100		100	10
Dibenzo (a,h) anthracene	100		100	20
Di-n-Butyl Phthalate	100		100	10
1,2-Dichlorobenzene	100		100	10
1,3-Dichlorobenzene	100		100	10
1,4-Dichlorobenzene {p-Dichlorobenzidine}	100		100	10
3,3-Dichlorobenzidine	100		100	50
Diethyl Phthalate	100		100	10

Fact Sheet

LA0064335; AI4803; PER20060004

Page 13

Dimethyl Phthalate	100		100	10
2,6-Dinitrotoluene	100		100	10
2,4-Dinitrotoluene	100		100	10
Di- <i>n</i> -octyl Phthalate	100		100	10
1,2-Diphenylhydrazine	100		100	20
Fluoranthene	100		100	10
Fluorene	100		100	10
Hexachlorobenzene	100	0.002	0.002	10
Hexachlorobutadiene	100	0.893	0.893	10
Hexachlorocyclopentadiene	100		100	10
Hexachloroethane	100		100	20
Ideno (1,2,3- <i>cd</i>)pyrene	100		100	20
Isophorone	100		100	10
Naphthalene	100		100	10
Nitrobenzene	100		100	10
N-nitrosodimethylamine	100		100	50
N-nitrosodiphenylamine	100		100	20
N-nitrosodi- <i>n</i> -propylamine	100		100	20
Phenanthrene	100		100	10
Pyrene	100		100	10
1,2,4-Trichlorobenzene	100		100	10

* Chronic Value taken from the Water Quality Criteria Summary

Total Chromium has been removed from State Water Quality Standards and replaced with criteria for Chromium III and Chromium VI, reference to Total Chromium has been removed from the PPS tables.

A number of the threshold limitations established from the criteria are below EPA established minimum quantification levels (MQL). The MQL is accepted as the lowest concentration at which a substance can be quantitatively measured. Where the permit limits are below the MQL the following is noted in the permit:

If any individual analytical test result is less than the minimum quantification level (MQL) listed above, a value of zero(0) may be used as the test result for those parameters for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

5) Toxicity Characteristics

Based on information contained in the permit application, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. The State has established a narrative criteria which, in part, states that "No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life..." (LAC 33:IX.1113.B.5) Testing since the issuance of the previous permit has demonstrated 1 lethal and 1 sub-lethal test failures for *Pimephales promelas* and 9 sub-lethal test failures for *Ceriodaphnia dubia*. A WET limit is established in the proposed permit to meet narrative criteria which, in part, states that "No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life ..." (LAC 33:IX.1113.B.5). The permittee will have three years to comply with the WET limit.

Fact Sheet

LA0064335; A14803; PER20060004

Page 14

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testing performed in accordance with the LPDES Permit No. LA0064335, Part II, Section E & F. for the organisms indicated below.

TOXICITY TESTS**FREQUENCY**

Chronic static renewal 7-day survival & reproduction test
using Ceriodaphnia dubia (Method 1002.0) 1/quarter

Chronic static renewal 7-day survival & growth test
using fathead minnow (Pimephales promelas) (Method 1000.0) 1/quarter

This frequency is based on recommendation by LDEQ Biomonitoring personnel (see attached recommendation), the receiving stream, and the facility's previous biomonitoring test results.

Dilution Series – The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in toxicity tests. These additional concentrations shall be 23%, 31%, 42%, 55%, and 74%. The low-flow effluent concentration (critical low-flow dilution or WET limit) is defined as 55% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in **Part II Section E & F** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in **Part II Section E & F** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or waterbody. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.2903. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Fact Sheet

LA0064335; AI4803; PER20060004

Page 15

X.

PREVIOUS PERMITS:

LPDES Permit No. LA0064335:

Issued:

December 12, 2001

Expired:

December 11, 2006

Outfall 003 & 004

Effluent CharacteristicDischarge LimitationsMonitoring Requirements

	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Daily	Estimate
TOC	---	50 mg/l	1/month	Grab
TSS	---	Report mg/l	1/month	Grab
Oil and grease	---	15 mg/l	1/month	Grab
Ammonia-Nitrogen	5 mg/l	Report mg/l	1/month	Grab
pH*	---	---	1/month	Grab
Total Arsenic	---	Report	1/month	Grab
Total Barium	---	Report	1/month	Grab
Total Cadmium	---	Report	1/month	Grab
Total Chromium	---	Report	1/month	Grab
Total Cyanide	---	Report	1/month	Grab
Total Lead	---	Report	1/month	Grab
Total Mercury	---	Report	1/month	Grab
Total Selenium	---	Report	1/month	Grab
Total Silver	---	Report	1/month	Grab

Outfall 005

Effluent CharacteristicDischarge LimitationsMonitoring Requirements

	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Daily	Estimate
BOD ₅	20 mg/l	30 mg/l	1/month	Grab
TSS	35 mg/l	50 mg/l	1/month	Grab
Oil and grease	---	15 mg/l	1/month	Grab
Ammonia-nitrogen	4.9 mg/l	10 mg/l	1/month	Grab
Chlorides	415 mg/l	985 mg/l	1/month	Grab
Sulfates	---	250 mg/l	1/month	Grab
Fecal coliform	200	400	1/month	Grab
pH*	---	---	1/month	Grab
Priority Pollutants	---	Report ug/l	1/6 months	Grab
Total Phenols	74.8 ug/l	178.1 ug/l	1/quarter	24-hr. comp.
Total Cyanide	5.4 ug/l	12.8 ug/l	1/quarter	24-hr. comp.
Alpha Terpineol	0.016 ug/l	0.033 ug/l	1/quarter	24-hr. comp.
Benzoic Acid	0.071 ug/l	0.12 ug/l	1/quarter	24-hr. comp.
p-Cresol	0.014 ug/l	0.025 ug/l	1/quarter	24-hr. comp.
Zinc	0.11 ug/l	0.2 ug/l	1/quarter	24-hr. comp.
Phenol	0.015 ug/l	0.026 ug/l	1/quarter	24 hr. comp.

* The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.

The permit contains biomonitoring.

The permit contains stormwater pollution prevention language.

Fact Sheet

LA0064335; A14803; PER20060004

Page 16

XI.

ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates the following most recent inspection was performed for this facility.

Date – November 15, 2002

Inspector - LDEQ.

Findings and/or Violations -

1. The facility's LDPES permit was issued January 1, 2002.
2. Facility sewage is treated by a Mo-Dad sewage treatment plant and sent to the treatment basin and discharged via 005.
3. All leachate from the active and inactive cells is pumped to frac tanks for disposal off-site. Rainwater within the active cell can be pumped to the frac tanks.
4. Outfall 005 effluent is batch discharged via two pumps.
5. A pH meter calibration log was not being kept.

B) Compliance and/or Administrative Orders

A review of the files indicates the no recent enforcement actions administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning June, 2006 through June, 2008 has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TOC	004	Jan, 2007	50 mg/l	64.7 mg/l
TOC	004	June, 2008	50 mg/l	54.3 mg/l
Chlorides	005	Mar, 2008	415 mg/l	674 mg/l
Chlorides	005	Sept, 2008	415 mg/l	617 mg/l
Chlorides	005	Jan, 2007	415 mg/l	584 mg/l
Chlorides	005	Nov, 2006	415 mg/l	686 mg/l
Chlorides	005	Oct, 2006	415 mg/l	596 mg/l
Cyanide	005	Sept, 2007	0.0054 mg/l	<0.02 mg/l
Cyanide	005	Sept, 2007	0.0128 mg/l	<0.02 mg/l
Cyanide	005	Jan, 2007	0.0054 mg/l	<0.02 mg/l
Cyanide	005	Jan, 2007	0.0128 mg/l	<0.02 mg/l

Fact Sheet

LA0064335; A14803; PER20060004

Page 17

XII.

ADDITIONAL INFORMATION:

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the futures to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are similar to other landfill facilities.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

SEWAGE SLUDGE

Part II, Section D requires that any truck disposing of hauled sewage sludge into the landfill must be properly registered by the Louisiana Department of Environmental Quality (LDEQ) to haul sewage sludge. The receipt of hauled sewage sludge from an unauthorized/unregistered hauler, shall constitute a violation of the permit.

Fact Sheet

LA0064335; A14803; PER20060004

Page 18

Stormwater Pollution Prevention Plan

If the permittee does not already have a Storm Water Pollution Prevention Plan (SWP3), then the permittee shall prepare, implement, and maintain a SWP3 within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. Any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 50 mg/L TOC, 15 mg/L Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination, shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Part II, Section B of the permit.

If the permittee does already have a Storm Water Pollution Prevention Plan, the Plan should be reviewed for compliance with Part II, Section B of the permit and updated if necessary.

XIII

TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV

REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, BFI Waste Systems of Louisiana, LLC, Colonial Landfill, October 25, 2008.